

REMARKS/ARGUMENTS

1. Rejection of claims 1-3, 6-8, 10-14, 16-18 and 20-21 under 35 U.S.C. 103(a) as being unpatentable over Ledger et al. (5,515,167) in view of Strasbaugh et al. (US 2003/0134578):

5

Claim 1:

Claim 1 is amended to overcome this rejection. Specifically, the limitation “the electrostatic chuck is separated from the conducting layer before carrying the wafer” is added in claim 1. This limitation finds support in [0018] in the specification for instance,
10 and no new matter is introduced.

The wafer carrier of claim 1, which comprises a transparent base, a conducting layer positioned on a bottom surface of the transparent base, and a bonding layer positioned on a top surface of the wafer carrier for bonding the wafer and the transparent base together,
15 is attracted by an electrostatic chuck via the conducting layer. Specifically, the conducting layer is one of the wafer carrier’s components, and disposed on the transparent base before the wafer carrier is attracted by the electrostatic chuck. This means the wafer carrier having the conducting layer, and the electrostatic chuck are separated before carrying the wafer.

20

Considering Leger’s teaching, the conducting layer 32 is part of the electrostatic chuck 24. In col. 4, line 10-col. 5, line 55, Ledger describes that the conducting layer 32 is formed on the electrostatic chuck 32. For instance, Ledger specifies that the conducting layer 32 is deposited on the electrostatic chuck 24 (col. 4, lines 58-60). Also, he also
25 teaches that the electrostatic chuck 24 is formed by first coating the conducting film on the membrane 34, and then cementing the membrane 34 with the chuck 24 (col. 5, lines 29-33; lines 42-47). This means **the conducting layer 34, the membrane 34, and the**

chuck 24 are all combined together before carrying the wafer.

5 The wafer carrier of claim 1 is a media to carry a wafer. The wafer carrier has a conducting layer formed thereon so that the electrostatic chuck can attract the wafer carrier by electrostatic force, and a bonding layer to bond the wafer. The wafer is not adhered to the wafer carrier or the electrostatic chuck by electrostatic force. Compared with the wafer carrier of claim 1, Ledger's invention is an electrostatic chuck having membrane and conducting layer formed thereon before the chuck attracts the wafer. It is common and required to have an electrode or conducting layer in the electrostatic chuck so that it can attract the wafer. The electrostatic chuck used to attract the wafer carrier in claim 1 also requires electrode or conducting layer, but they are not shown or described in detail because they are part of the electrostatic chuck, which is not the point of the instant application.

15 The idea of the present application is to propose a wafer carrier that can be attracted by the electrostatic chuck because of its intact surface compared to the surface of the processed wafer.

20 In addition, Ledger's chuck attracts the wafer with electrostatic force so that the chuck has the electrode and the membrane thereon. Using the bonding layer to bond the wafer and the electrostatic chuck not only is unnecessary, but also change the principle of operation of Ledger's invention. See In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). In the instant case, if the wafer is bonded to Ledger's chuck with a bonding layer, the conducting layer will be redundant and useless. The applicant believes doing so is meaningless and would change the principle of operation of Ledger's teaching.

Thus, Reconsideration of claim 1 is politely requested.

Claim 2-3, 6-8, and 10-11:

Claims 2-3, 6-8, and 10-11 are dependent on claim 1, and should be allowed if claim 1 is found allowable. Reconsideration of claims 2-3, 6-8, and 10-11 is therefore requested.

5

Claim 12:

Claim 12 is amended to overcome this rejection. Specifically, the limitation “the electrostatic chuck is separated from the conducting layer before carrying the wafer” is added in claim 12. This limitation finds support in [0018] in the specification for instance, and no new matter is introduced.

10

Claim 12 also includes the distinguishable limitations as claim 1. Reconsideration of claim 12 in view of the argument made to rejection of claim 1 is requested.

15 Claims 13-14, 16-18, and 20-21:

Claims 13-14, 16-18, and 20-21 are dependent on claim 12, and should be allowed if claim 12 is found allowable. Reconsideration of claims 13-14, 16-18, and 20-21 is therefore requested.

20 **2. Rejection of claims 4 and 15 under 35 U.S.C. 103(a) as being unpatentable over Ledger et al. in view of Strasbaugh et al. and further in view of Suzuki et al. (US 2003/0029565):**

Claim 4:

25 Claim 4 is dependent on claim 1, and should be allowed if claim 1 is found allowable. Reconsideration of claim 4 is therefore requested.

Claim 15:

Claim 15 is dependent on claim 12, and should be allowed if claim 12 is found allowable. Reconsideration of claim 15 is therefore requested.

**3. Rejection of claims 9 and 19 under 35 U.S.C. 103(a) as being unpatentable over
5 Ledger et al. in view of Strasbaugh et al., and further in view of Bollen et al. (US
 4,766,515):**

Claim 9:

Claim 9 is dependent on claim 1, and should be allowed if claim 1 is found allowable.
10 Reconsideration of claim 9 is therefore requested.

Claim 19:

Claim 19 is dependent on claim 12, and should be allowed if claim 12 is found
allowable. Reconsideration of claim 19 is therefore requested.
15

4. New claim 22:

New claim 22, which recites a method of carrying a wafer, is added. The limitations
of claim 22 find support in [0018]-[0019] in the specification for instance, and no new
matter is introduced.
20

Consideration of claim 22 is politely requested.

5. Amendment to the specification:

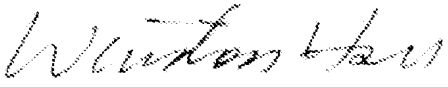
The title of the invention has been amended as “**WAFER CARRIER AND METHOD OF
25 CARRYING A WAFER””. The new title is more descriptive to the present application, and
no new matter is introduced.**

Applicant respectfully requests that a timely Notice of Allowance be issued in this

Appl. No. 10/711,882
Amdt. dated November 22, 2007
Reply to Office action of August 23, 2007

case.

Sincerely yours,

5 

Date: 11.22.2007

Winston Hsu, Patent Agent No. 41,526

P.O. BOX 506, Merrifield, VA 22116, U.S.A.

Voice Mail: 302-729-1562

Facsimile: 806-498-6673

10 e-mail : winstonhsu@naipo.com

Note: Please leave a message in my voice mail if you need to talk to me. (The time in D.C.
is 13 hours behind the Taiwan time, i.e. 9 AM in D.C. = 10 PM in Taiwan.)

15